

CLAIMS

1. Arrangement for fixing an add-on piece, e.g., an excavator shovel, to a shovel boom or to a vehicle in a replaceable manner, wherein two parallel holding bolts oriented parallel to and spaced apart from each other are arranged on the add-on piece; wherein the holding bolts can be gripped by grippers, which can be displaced in relation to one another and which are arranged on a holding element on the shovel boom or on the vehicle; wherein said grippers comprise at least partially open insertion openings for the holding bolts and wherein one of the grippers is connected to the holding element in a fixed manner and another one of the grippers is held in a guide of the holding element in a linearly displaceable manner, characterized in that spring elements (11) acting in a closing direction of the gripper (7) are associated with the linearly displaceable gripper (7); and that an insertion opening (8) which is open in a direction of an imaginary plane through axes of the holding bolts (3, 4) is provided on the fixed gripper (6), and an abutment (12) which is oriented at least approximately at right angles to the imaginary plane, at a distance matching a distance (A) between the holding bolts (3, 4), is provided on the holding element (5) as an insertion part for the second holding bolt (4); and that the displaceable gripper (7) comprises a hook-shaped, freely projecting section (13) for at least partially gripping the second holding bolt (4) on a region opposite the abutment (12).

2. Arrangement according to claim 1, characterized in that the displaceable gripper (7) is formed as an essentially T-shaped component, having a first part (14) that engages in the guides (10) of the holding element (5) and an other part configured as the freely projecting, hook-shaped section (13) approximately at right angles to the first part.

3. Arrangement according to claim 1 or 2, characterized in that a mounting element (15), which has means for attaching one end of the spring element (11), is connected rigidly to the displaceable gripper (7).

4. Arrangement according to claim 3, characterized in that the displaceable gripper (7) and the mounting element (15) are screwed to each other.

5. Arrangement according to claim 3, characterized in that the spring element (11) engages the mounting element (15) on one side and a fixed part (17) of the holding element (5) on the other side.
6. Arrangement according to one of claims 1 to 5, characterized in that the mounting element (15) has a freely projecting flange (18), which covers the spring element in the closed position of the displaceable gripper (7) up to the add-on piece (1).
7. Arrangement according to one of claims 1 to 6, characterized in that the spring element (11) is formed by at least one helical spring (21, 22).
8. Arrangement according to claim 7, characterized in that the spring element (11) is formed by two helical springs (21, 22) oriented parallel to each other.
9. Arrangement according to claim 3, characterized in that there are means for attaching an implement, e.g., a rod, for displacing the gripper (7) on the displaceable gripper (7) and/or on the mounting element (15) connected to the gripper.
10. Arrangement according to claim 9, characterized in that there is an angle bracket (32) on a free, outwardly projecting end of the mounting element (15) as means for attaching an implement.
11. Arrangement according to claim 9, characterized in that there is an elongated hole formed on a free, outwardly projecting end of the mounting element (15) as means for attaching an implement.
12. Arrangement according to one of the preceding claims, characterized in that the insertion opening (8) of the fixed gripper (6) is formed by a main part (24), which is adapted to a diameter of a holding bolt (3) and which is semicircular in cross section, and optionally angled insertion surfaces (25, 26) are located adjacent to the main part.

13. Arrangement according to one of the preceding claims, characterized in that an abutment (12) is formed running at an acute angle to an imaginary plane through the center axes of the holding bolts (3, 4) and lying opposite the insertion opening (8) on the fixed gripper (6), wherein the abutment transitions at a top end into a circular arc section (27) and grips the other holding bolt (4) as a support section.

14. Arrangement according to one of the preceding claims, characterized in that the hook-shaped, freely projecting section (13) of the displaceable gripper (7) has an insertion opening (9), which is directed towards the abutment (12) and which has a main part (28) at least approximately semicircular in cross section and insertion surfaces (29, 30) adjacent to this main part on both sides.

15. Arrangement according to claim 14, characterized in that a free end region of the hook-shaped section (13) opposite the insertion opening (9) has a rounded closing surface (31) and thus is formed with a tapering profile towards the insertion opening (9).

16. Arrangement according to one of the preceding claims, characterized in that an opening (20), which is smaller than a diameter of a holding bolt (4), remains between the abutment (12) and the insertion opening (9) on the hook-shaped section (13) of the displaceable gripper (7), so that a constant positive and frictional fit is given when the holding bolt (4) is inserted.